

In the Specification:

Please amend the following paragraphs:

[0001] [[Applicants]] Applicant hereby claims foreign priority benefits under U.S.C. § 119 of Japanese Patent Application No. 2003-122026, filed on April 25, 2003, and the content of which is herein incorporated by reference.

[0020] Furthermore, the abovementioned step of adjusting the pre-mixing period may include one or a combination of the steps of adjusting the EGR (Exhaust Gas Recirculating) rate, adjusting the compression ratio, and adjusting the temperature of the mixture.

[0033] The fuel injection control device of the present embodiment comprises target pre-mixing period determining means for determining the target (optimal) pre-mixing period on the basis of the engine operating conditions, actual pre-mixing period detection means for detecting the actual pre-mixing period of the mixture, and pre-mixing period adjustment means for adjusting the pre-mixing period of fuel so that the above-mentioned [[failover the fuel so that the abovementioned]] actual pre-mixing period approaches (coincides with) the abovementioned target pre-mixing period. The pre-mixing period of the fuel is appropriately controlled by these respective means.

[0044] Next, one example of the pre-mixing period control (adjustment) method will be described. Furthermore, in the present embodiment, it is desirable from the standpoints of increasing output and lowering fuel consumption that the pre-mixing period be controlled so that the fuel ignition timing is in the vicinity of compression top dead center [[TDC]] (TDC) [[(top dead center)]] of the piston 4.

[0053] As is seen from Fig. 2, the mean gas temperature T_{mean} inside the cylinder and the cylinder pressure P_{cyl} are slightly higher in the case of line I, where the pre-mixing period is long, than in the case of line II, where the pre-

mixing period is short. On the other hand, the heat generation rate ROHR (Rate of [[Hear]] Heat Release) is substantially the same for both lines I and II.

[0055] Furthermore, in regard to the fuel consumption rate BSFC ([[Break]] Brake Specific Fuel consumption), more or less comparable values are obtained in I and II. This is thought to be due to the fact that the ignition timing is substantially the same in both cases. In other words, the fuel ignition timing has a great effect on the fuel consumption rate.